The background of the slide is a deep space image, specifically the Hubble Ultra-deep field, showing a vast number of distant galaxies and stars against a black background. The galaxies are of various shapes and sizes, some appearing as bright, irregular blobs of light, while others are more elongated or spiral-like. The stars appear as small, sharp points of light, some with visible diffraction spikes.

# *Origin and Evolution of the Universe*

# **Natural Sciences 102**

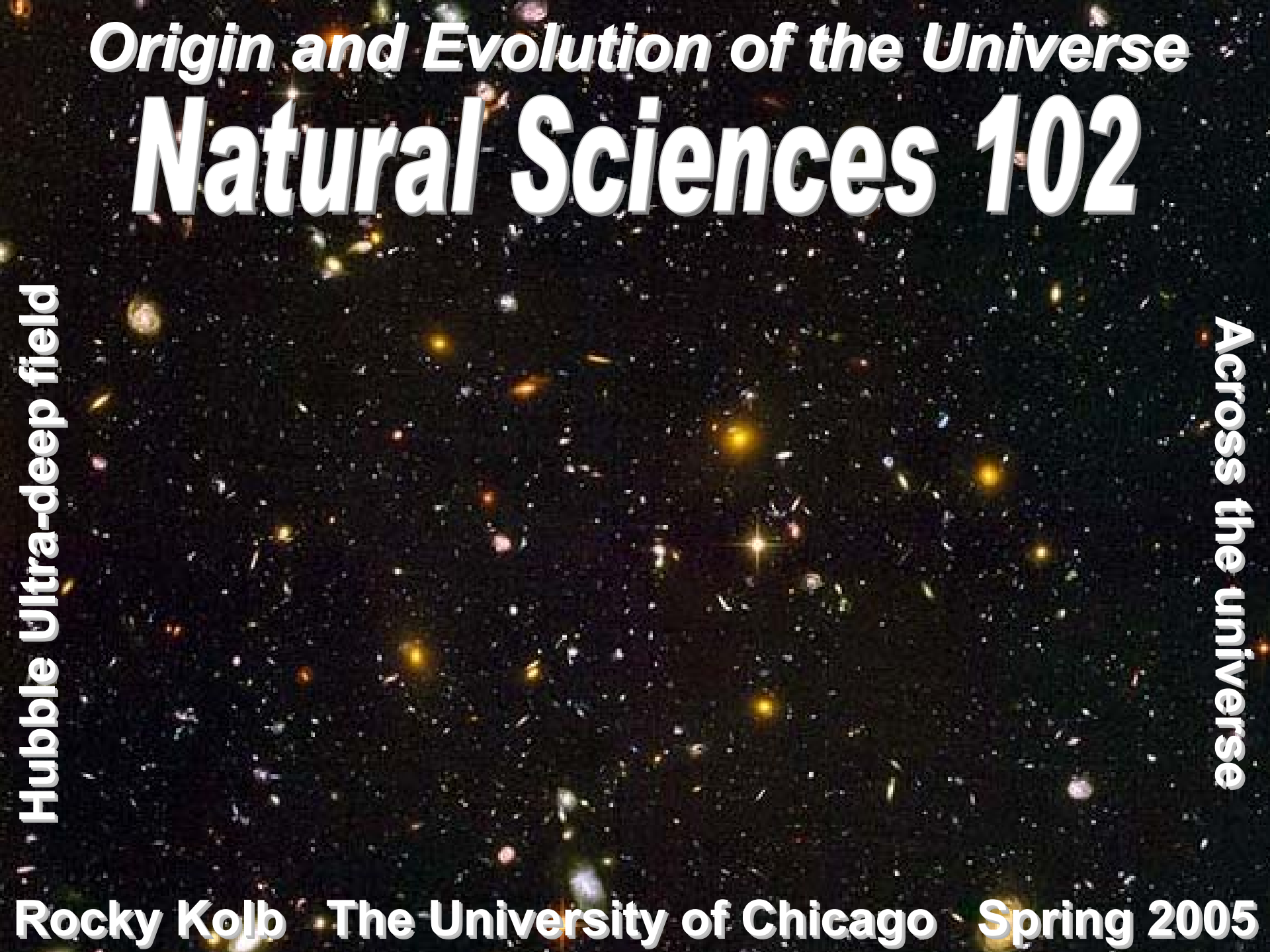
**Hubble Ultra-deep field**

**Across the universe**

**Rocky Kolb   The University of Chicago   Spring 2005**

# Britney-Free Class



The background of the slide is a deep space image, specifically the Hubble Ultra-deep field, showing a vast number of distant galaxies and stars against a black background. The galaxies are of various shapes and sizes, some appearing as bright, irregular blobs, others as more structured spirals or ellipses. The stars are small, bright points of light, some with visible diffraction spikes.

# *Origin and Evolution of the Universe*

# **Natural Sciences 102**

**Hubble Ultra-deep field**

**Across the universe**

**Rocky Kolb   The University of Chicago   Spring 2005**

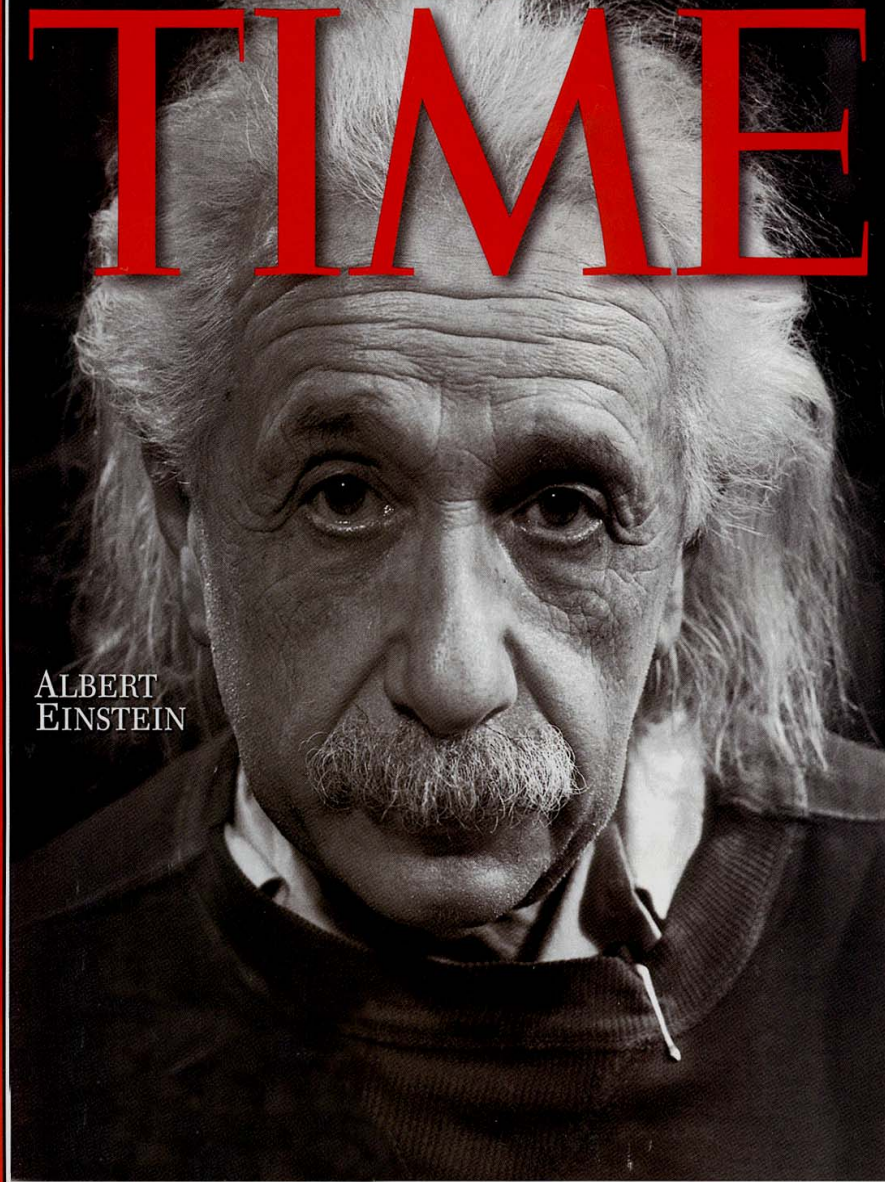
DECEMBER 31, 1999 \$4.95

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# PERSON OF THE CENTURY

# TIME

ALBERT  
EINSTEIN







**“The most beautiful thing we can experience is the mysterious. It is the source of all true art and all science. Those to whom this emotion is a stranger, who can no longer pause to wonder and stand rapt in awe, are as good as dead: their eyes are closed.”**

**Albert Einstein**

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THE PUBLIC TELEVISION SERIES



# Stephen Hawking's Universe

THE COSMOS EXPLAINED

DAVID FILKIN

FOREWORD BY STEPHEN HAWKING

It's  
your  
universe  
too!

**Edwin Hubble**



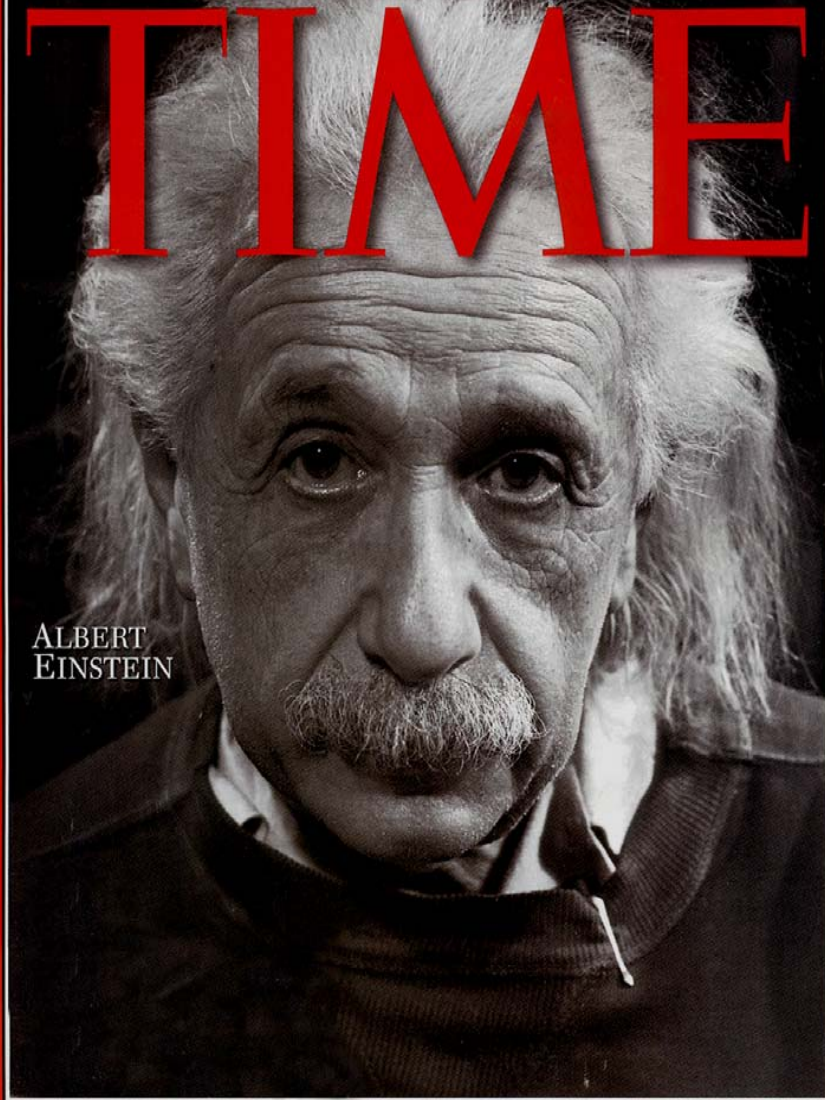
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# PERSON OF THE CENTURY

# TIME

ALBERT  
EINSTEIN



Einstein, ca. 1952



Einstein, ca. 1912






**"When the Special Theory of Relativity began to germinate in me, I was visited by all sorts of nervous conflicts... I used to go away for weeks in a state of confusion."**

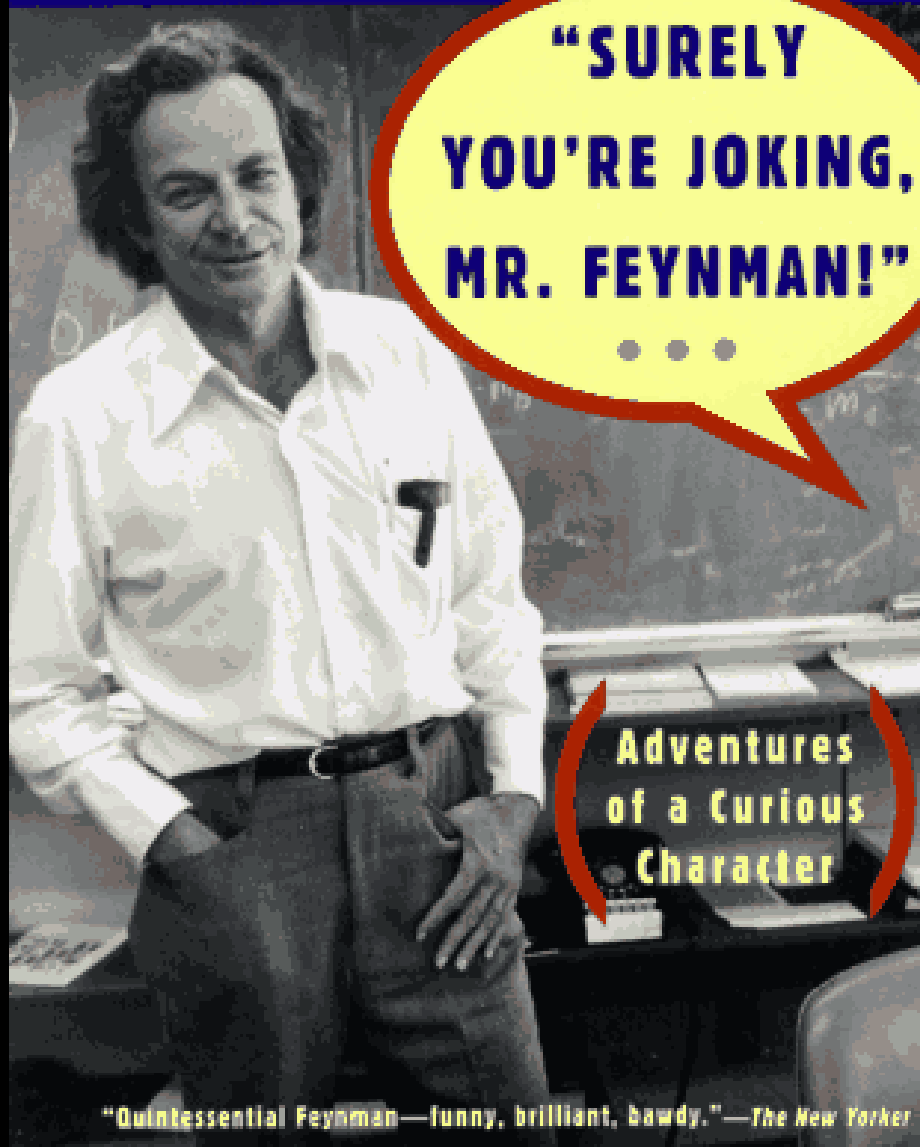
**"A storm broke loose in my mind."**

**Einstein, ca. 1905**



**TUVA OR BUST!**

NEW YORK TIMES BESTSELLER



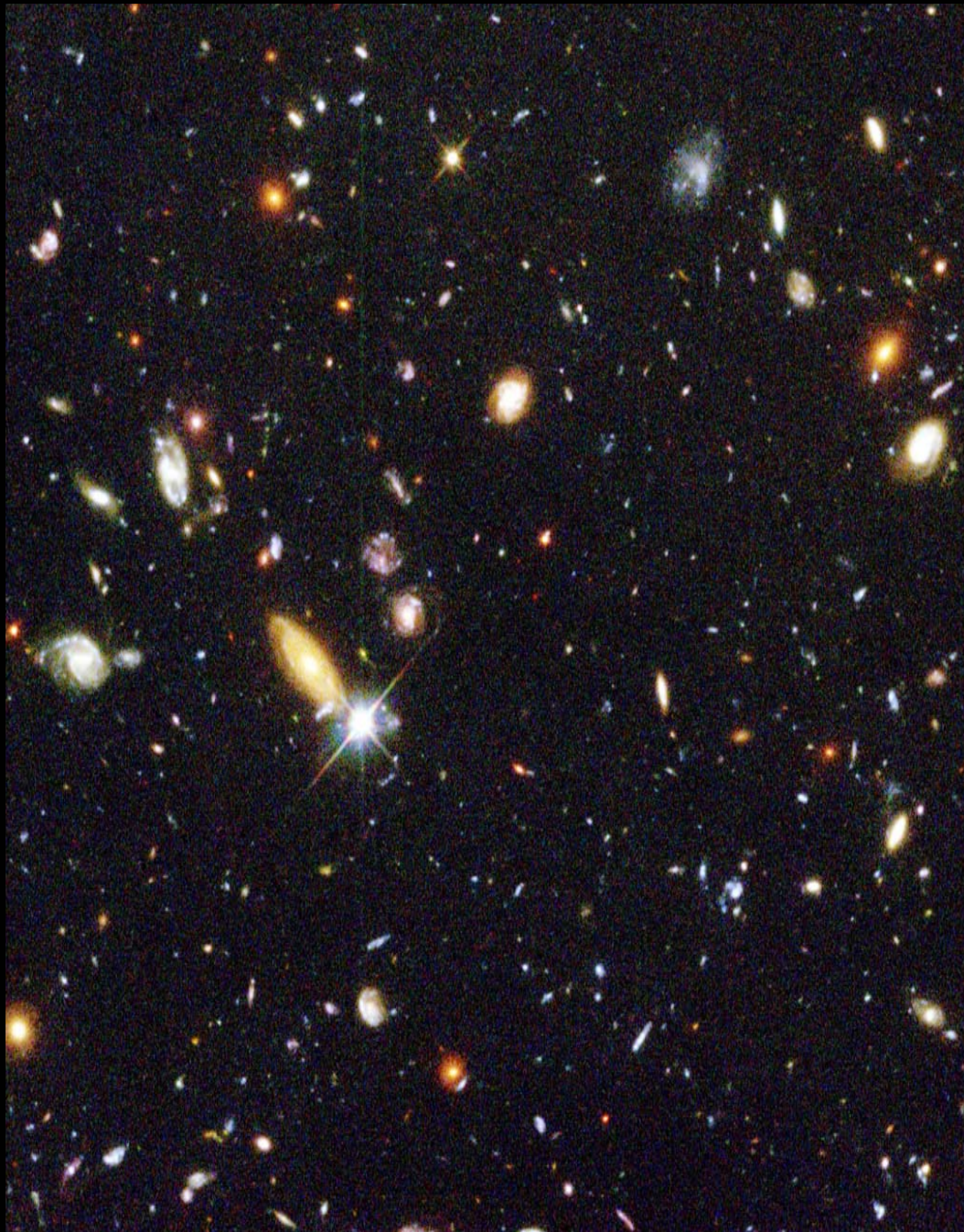
**"SURELY  
YOU'RE JOKING,  
MR. FEYNMAN!"**

...

**Adventures  
of a Curious  
Character**

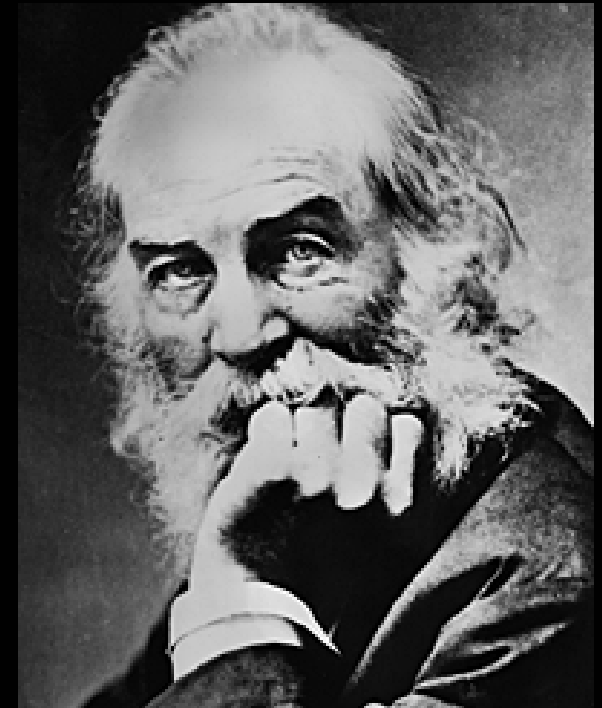
*"Quintessential Feynman—funny, brilliant, bowdy."—The New Yorker*

**RICHARD P. FEYNMAN**



**Every cubic inch of space is a miracle!**

- **cosmic radiation**
- **virtual particles**
- **Higgs potential**
- **dark matter**
- **dark energy**



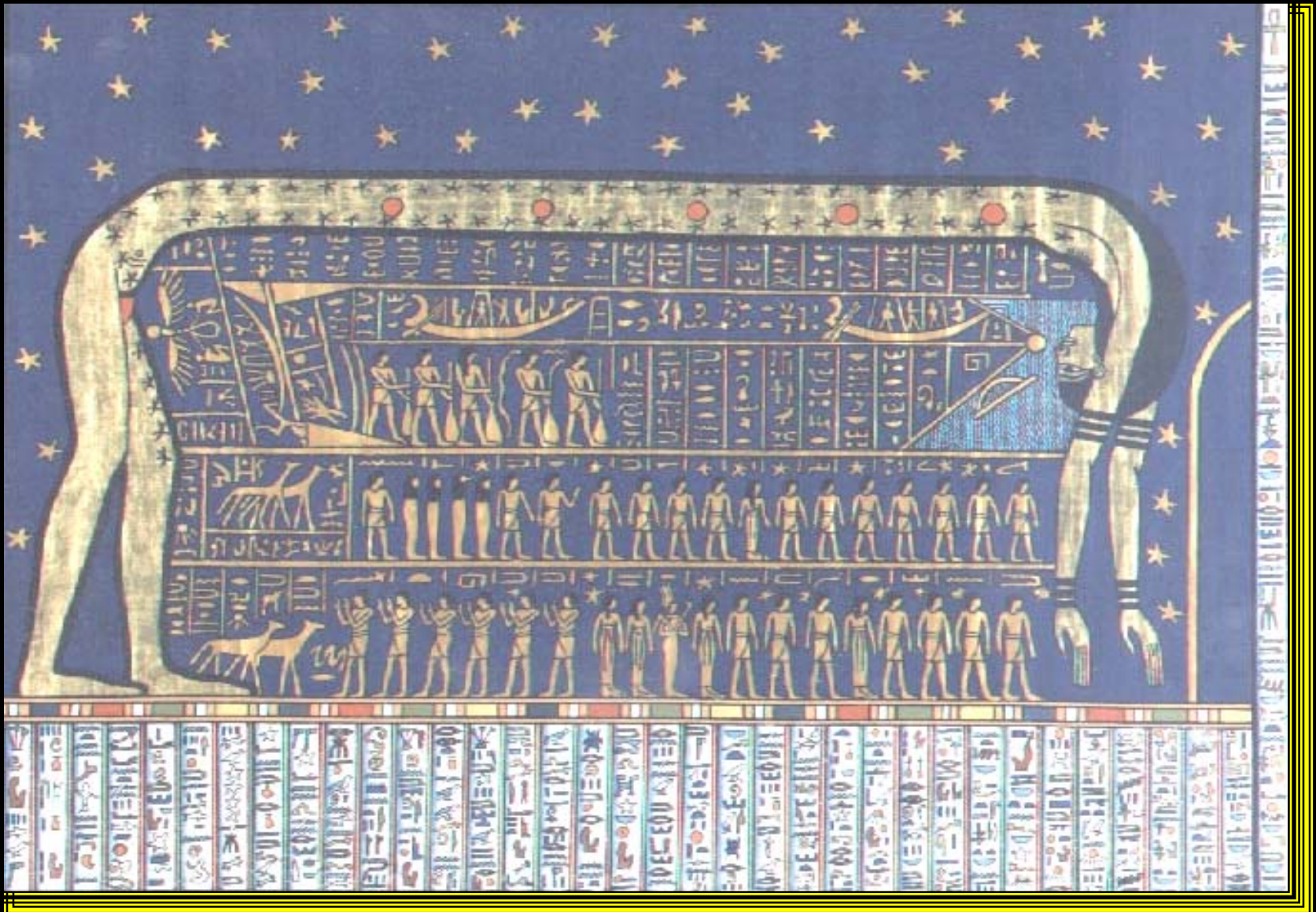


cosmology

cosmetology

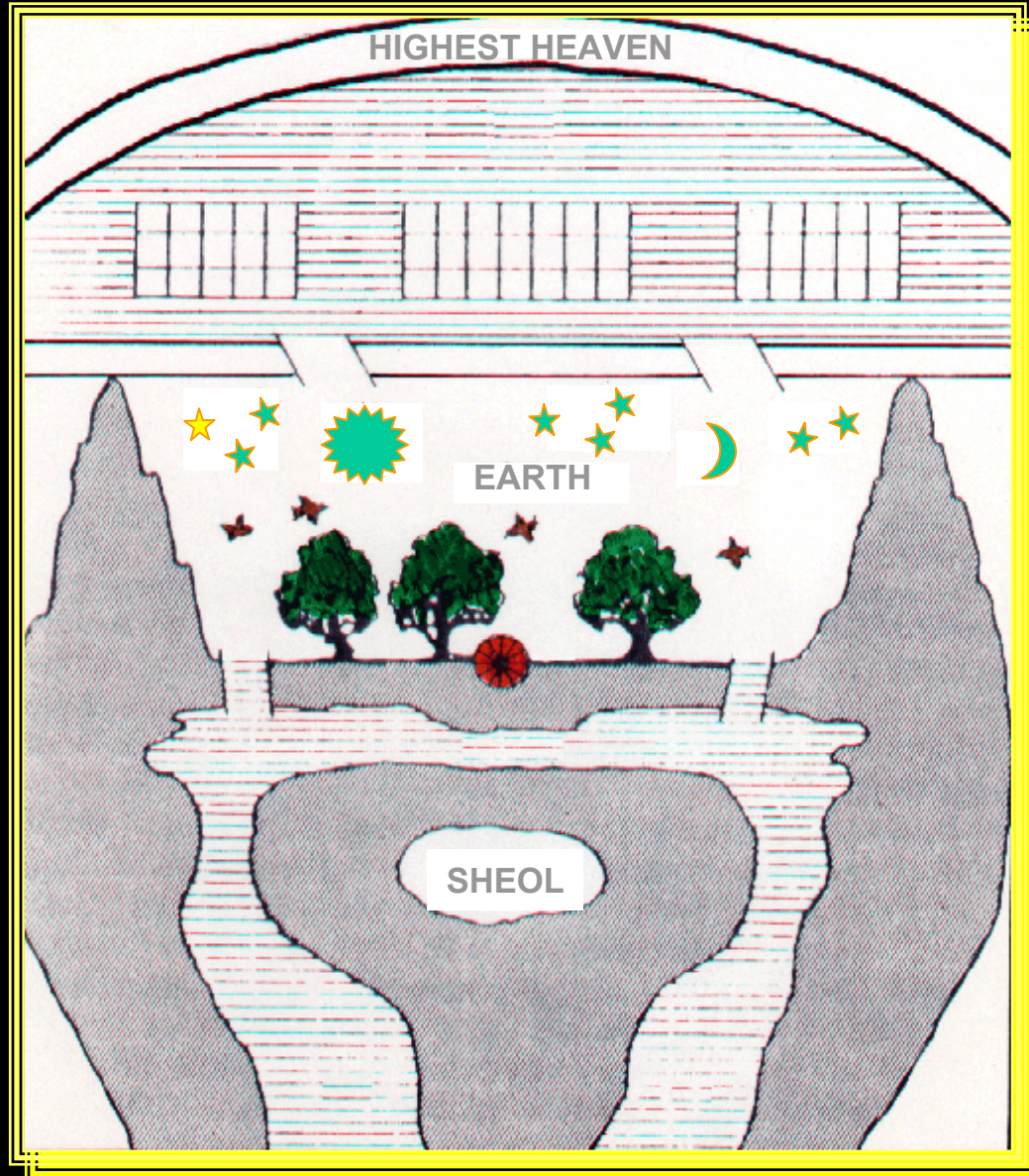
*cosmos (κόσμος)*

# A view of the universe, circa 2005 B.C.





# A view of the universe, circa 1005 A.D.\*



\*and circa 2005 A.D. in parts of Kansas